

A
PROBATIONARY
SURGICAL ESSAY
ON
GONORRHOEA VIRULENTA;

SUBMITTED, BY AUTHORITY OF

THE PRESIDENT AND HIS COUNCIL,

TO THE EXAMINATION

OF THE

ROYAL COLLEGE OF SURGEONS OF EDINBURGH,

WHEN CANDIDATE

FOR ADMISSION INTO THEIR CORPORATION, IN CONFORMITY TO
THEIR REGULATIONS, RESPECTING THE ADMISSION
OF ORDINARY MEMBERS.

BY JOHN LIZARS, SURGEON.

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TO

JOHN BELL, ESQ. SURGEON,

AND

ROBERT ALLAN, ESQ. SURGEON,

LECTURER ON SURGERY IN EDINBURGH;

THIS ESSAY

IS MOST RESPECTFULLY DEDICATED BY THE AUTHOR,

GRATEFUL FOR THE ADVANTAGES HE DERIVED,

WHILE UNDER THEIR TUITION;

AND FOR

THE SINCERE FRIENDSHIP,

WHICH THEY HAVE UNIFORMLY SHOWN HIM.

GONORRHŒA VIRULENTA.

TAKING advantage of the facts which relate to gonorrhœa, I shall proceed directly to the statement of my own views on the subject.

Gonorrhœa is a diseased discharge from the mucous membrane of the urethra, presenting a variety of symptoms, and, in my opinion, may be, with propriety, divided into three species. The first appears to be an inflamed state of the membrane, of a specific character:—The second, an ulceration of the same surface, occasioned ordinarily by a continuance of the first:—And the third, either the one or the other of these two, attended by a chancre

at the orifice of the urethra. The first, or an inflammation of the membrane of the urethra, is perfectly free from any affection of syphilis; the second is sometimes equally so, and sometimes not, depending entirely on that from which the disease has originated; and the third is accompanied always with a primary affection of this disease.

The symptoms of these three kinds are nearly the same, and begin to exhibit themselves at different periods, after infection. At the commencement of the attack, the patient feels a tickling sensation, neither decidedly pleasant, nor painful, about the orifice of the urethra; a frequent inclination to make water, which is soon accompanied with a scalding pain; the lips of the urethra become fretful and swollen; and a discharge of thin mucus takes place. The symptoms now hourly declare the increasing violence of the disease,—

the desire to make water becomes incessant,—the pain, in voiding it, grows acute,—and a disagreeable itching about the perineum and anus is experienced. The penis swells, particularly the glans and prepuce, and is disposed to erect itself: the erection, which principally takes place during the night, in consequence of the body being heated, or from the accumulation of urine in the bladder, is attended by severe pain, and a curved appearance, called *chordee*. The discharge now flows in considerable quantity, is of a thicker consistence, and of a greenish colour. If the patient have used no remedies, nor indulged in any excess of diet or exercise, these symptoms and appearances generally last for ten or twelve days; then the inclination to make water and the ardor urinæ begin to abate, the enlargement of the penis gradually to decrease, and its tendency to erection to relax. The running assumes a whiter hue and a thicker consistency, at the same time

issues in greater quantity. After the continuance of these for some time, the ardor urinæ and chordee by degrees cease; and the matter losing its consistence and colour, degenerates into a glairy fluid, which, with the inability to retain the urine for the same length of time as in health, constitutes gleet.

The preceding is a description of the general symptoms which appear in a gonorrhœa, more properly of the first species. They indeed vary more or less both in this and the other two species, according to the severity or mildness of the disease.

Frequently when the active inflammatory stage terminates, which is known by the abatement of the ardor urinæ and the inclination to erection, as well as the change of the discharge to a thick white nature, the disease ceases. Sometimes also, while the complaint remains

in this state, a febrile paroxysm occurs, the running is checked, and the other symptoms disappear.

If, however, the patient, by irregularity in living, inattention to his condition, or any other improper treatment, should cause the inflammation still to continue, then gleet, ulceration of the membrane of the urethra, stricture, fistula, affections of the urinary bladder, a diseased state of the different glands in the vicinity, as Cowper's, the prostate, the inguinal, and the testicle, are the probable results.

The second species, or ulcerated state, is known by the urethra, in one or two points, assuming an indurated contexture, which creates severe pain ; and when the hardness disappears, a great degree of tenderness remains : the discharge, also, independent of the measures used, preserves its ichorous nature, and is frequently

streaked with blood. The hardness commonly arises either about an inch from the mouth of the urethra, or at the inferior portion of the perineum near to the bulb. This species is usually induced, from long continued inflammation rendering the glandular lacunæ so irritable, that, whenever the action is in any degree increased, they inflame and suppurate. It may likewise be brought on by the existence of violent inflammation, at the beginning of the disease.

The third species is easily distinguished by the evidence of a chancre, at the orifice of the urethra. I am inclined to think, that no syphilitic matter can produce an ulcerated gonorrhœa, without at the same time creating a chancre at the lips of the urethra.

I have previously observed that a gleet is the result of long continued gonorrhœa; in-

deed the latter appears much disposed to degenerate into the former. The gleet here expressed, is that glairy fluid succeeding gonorrhœa, which is accompanied with a frequent inclination to make water, and usually straining after voiding it; and which is perfectly free from stricture of the urethra, or any diseased state of the prostate gland. Not that I am unaware that these latter diseases often accompany gleet, and are even produced by it, but that the treatment which I am about to recommend, would prove injurious in such cases.

TREATMENT.

HAVING divided the disease, in describing it, into three species, I shall retain the same arrangement throughout the treatment.

At the commencement of the first species, or that in which there is merely an inflammation of the mucous membrane of the urethra, hot anodyne applications are to be injected into the urethra, as often as can be conveniently done. * The more frequently this operation is performed, the shorter will be the duration of the inflammatory stage. The patient should remain as quiet as possible, should keep the parts well suspended, his bowels gently open, and observe the strictest low diet, with the free use of mucilaginous drinks. At bedtime, a large opiate should be introduced into the rectum, and the penis bound upwards or downwards with a handkerchief, keeping a ply of it between the penis and the skin. These directions must be faithfully observed, until

* The injection which I have found most efficacious, is a drachm of gum opium dissolved in a pint of hot water. This ought to be used as hot as the patient can bear it.

the desire to make water and the ardor urinæ begin to abate, and the running to assume a purulent appearance; then the hot applications are to be changed to cold water, which must also be injected, only not so often during the first twelve or twenty-four hours; in the meanwhile continuing the other directions. The cold water should have now added to it some astringent salt, as the sulphate of zinc, beginning with a grain or so to the six ounces of water, and increasing the quantity more and more as it loses its effect, *i. e.* as it begins to excite less pain, and to have less the power of altering the discharge to a healthy purulent nature; tincture of opium may then be added to the solution nearly in the same manner, proportioning the quantity each time to the effect produced.

In this gradual manner, may the strongest stimulants be applied to the urethra. In many instances they are indispensably necessary.

In those cases where the discharge has not been stopt by the former injection, a solution of the sulphate of copper may be substituted for that of the zinc, beginning with a grain to the ounce of water, and quickly augmenting it according to its effect. Sulphuric ether may be used in place of the laudanum.

The day after the application of the cold water, the diet should be progressively brought round to a generous nutritive nature. The other directions must be strictly continued; the bandaging the penis and the opiate per rectum, ought to be nightly employed, till the cessation of the erections.

By this plan of treatment, I have been able to remove the disease frequently in five or six days; and when consulted on the first appearance of the disease, in three. In mild instances, after reducing the inflammation by the hot in-

jections, and other means previously detailed, I have often succeeded in arresting the discharge by injecting cold water and laudanum, adding the latter gradually at first to the former, and increasing it more and more as it loses its effect. In the most severe cases, I have seldom seen the complaint resist the preceding treatment, longer than twelve days.

If the disease, however, has continued for several days previous to the application of any salutary means of cure, and if the inflammatory symptoms should appear more formidable than usual, with a swelling of the parts;—leeches, followed by hot fomentations, ought to be applied, together with the hot injection, and other remedies, formerly specified, until the inflammation subsides. Then the injection of the cold water, with the zinc and laudanum, is to be resorted to, along with the other restorative means.

When the prepuce is so swollen and contracted as to prevent it from being drawn back over the glans, or what is called phymosis, warm applications should be injected between the prepuce and glans, and fomentations used externally. These, carefully observed, will generally succeed in reducing the tumefaction and tension of the prepuce, and enable it to slide over the glans so as to denude it. Lest this method of procedure, however, should fail, there can be no necessity to lay open the prepuce, unless ulcers are suspected to lie beneath it. Many people have more or less a natural contraction of the prepuce, and in those who have it to any extent, there is a considerable secretion of whitish matter. Such persons are chiefly subject to spurious gonorrhœa.

When paraphymosis occurs, (which is a strangulation of the glans, occasioned by the prepuce being drawn behind it, and there con-

tracted to such a degree as to prevent it being again brought forward), its reduction should be attempted, if of short duration, by compressing the glans between the fore-finger and thumb of one hand, and with the fingers of the other bringing gently forward the prepuce: but if of so long duration, as to have caused lymph to be effused into the cellular substance of the skin, a few small punctures must be made with a lancet to evacuate the fluid, and then the reduction tried in the same manner. This, in my experience, has seldom failed. Should, however, the reverse be the case, the penis must be well fomented with the opiate solution, until a relaxation takes place, and the glans becomes capable of being reduced. Bleeding, so as to induce syncope, is, in some rare instances, requisite. This affection is also found commonly in those having natural phymosis.

In those cases where swelling of the testicle

occurs, provided there be no acute inflammation, hot opiate fomentations constantly applied to the parts, these well supported, the patient confined to bed, having the muscles of the abdomen and thigh relaxed, taking mild purgative medicines, and observing low diet, as well as injecting the hot anodyne solution into the urethra, will rarely prove unsuccessful in suppressing the tumefaction. But should the inflammation be in any degree severe, these measures ought to be preceded by the application of leeches. After the inflammation and the greater portion of the swelling have subsided, should there remain any induration of the testicle, an alternative course of mercury, together with the friction of camphorated mercurial ointment to the scrotum, ought to be pursued, continuing the suspension of the testicles, and paying strict attention to a regular habit of body. The diet may be ordinary. In this manner have I usually succeeded, in reducing inflammation

and tumefaction of the testicle, consequent on gonorrhœa.

After the foregoing means have been carefully employed in gonorrhœa, if the discharge be in the least degree disposed to become gleety, and if there exist no glandular affection in the constitution, the tincture of cantharides ought instantly to be resorted to, beginning with five drops morning and evening, and gradually increasing each day the number until a slight pain in voiding the urine be felt. This sensation must be kept up by a careful management of the medicine, till the discharge shall have disappeared, for at least four or five days. The diet at this time should be full and nourishing. The injection of the sulphate of zinc with the tincture of opium, must have been all along continued: in like manner, the suspension of the testicles must have been carefully observed.

If, through any mistake, the tincture of cantharides should be taken so rashly as to produce strangury, a smart dose of a neutral salt ought to be given, and hot fomentations applied to the lower part of the abdomen.

As gonorrhœa seems to have a natural tendency to terminate in gleet, and as in proportion to the time the membrane of the urethra has been affected, so will be the difficulty of the cure; this degenerated state should be attentively guarded against, by promptly bringing round the debilitated condition of the urethra to its wonted vigour. The disease from its continuance will also prove injurious to the parts in the vicinity, consequently it becomes the duty of the practitioner to check it as early as possible.

In those constitutions where scrofula, or any other affection of the glandular system, prevails,

gleet should be treated with an alterative course of mercury, a generous diet, and the same stimulating injections to the urethra. The mercury must never be carried the length of affecting the mouth, but so used as to act solely as an alterative. The preparation which I have found to answer best for this purpose, is the mercurial pill of the Edinburgh Pharmacopœia, giving two grains every night or morning.

TREATMENT OF THE SECOND SPECIES.

AT the beginning, while acute inflammation is evinced by the severe throbbing pain, and the indurated state which the urethra assumes in one or more places, leeches should be

applied to the swollen parts, followed by hot opiate fomentations. The hot anodyne solution must likewise be injected into the urethra; and the opiate used per rectum. The patient should remain as quiet in this as in the first species, should have the same mucilaginous drink and low diet, and pay equal attention to his bowels and the supporting of the privates.

Whenever the induration subsides, and a discharge of purulent matter, tinged sometimes with blood, takes place, ulceration may be said to have ensued. The part feels excessively painful in making water and on being pressed. The running soon becomes thin and ichorous.

The moment that such a change happens, cold water ought to be injected occasionally to wash away the matter, and when the pain is

severe, a little opium, with propriety, may be added. The patient must commence an alterative course of mercury, which may be carried the length of rendering the mouth a little sore, in those cases where no syphilitic virus exists. When syphilitic matter does exist, the mercury should be continued for the same length of time, as in other primary affections of lues. No stimulating injections ought to be employed, as they have a tendency to cause exuberant granulations.

As far as my own experience extends, I have never carried the mercury further than slightly affecting the mouth, and even then I have never seen any bad effects ensue. I am at a loss to point out any symptom, which can determine the presence of syphilitic matter, while the disease is confined to the urethra. Nevertheless, I am decidedly of opinion, that

this is a point which ought to be determined only by assiduous investigation and experience.

TREATMENT OF THE THIRD SPECIES.

As this is either of the preceding kinds, accompanied with a chancre at the orifice of the urethra, the plan of treatment will vary according as the chancre makes its appearance, in the early or advanced stages of these species.

If during the inflammatory stage of the first, a chancre of the size of a pimple appear, it may be touched with caustic preparations, until it assumes a healthy aspect, and then dressed with dry charpee; deferring the mercurial course till the inflammatory stage of the

gonorrhœa has abated. When this has gone off, the mercury should be used so as to affect the system, and its effects kept up for the same length of time, as in other primary affections of syphilis.

If the chancre, however, be not discovered, or more probably not complained of, till it has an extended surface, it ought merely to be kept clean, until the inflammatory symptoms of the gonorrhœa have been removed; then the mercury must be administered till the system exhibits its effects, and these preserved for some time after the disappearance of the chancre.

Should the chancre appear after the inflammation has subsided, mercury must be instantly recurred to; if it be noticed while a pimple, caustic may be used; if while an ulcer, simply kept clean.

When a chancre occurs in the ulcerated stage, mercury should be immediately used, carried the length of affecting the system, and continued for some time after the healing of the chancre and the ulcerated membrane. The same applications, as previously detailed, are to be applied to the chancre and urethra, both in this and the preceding instances.

From the preceding observations, it will appear that an important question remains undetermined, whether syphilitic ulcerated gonorrhœa can be produced without a chancre appearing at the lips of the urethra. Were this decided by experience, we should then rest assured, that the constitution could be suffering no injury from the absorption of the matter in those cases unaccompanied with chancre: that gonorrhœa was a disease *sui generis*, and totally incapable of producing any symptoms of syphilis. As far as my inquiries into this

subject have extended, no instance of ulcerated gonorrhœa, without chancre, has been followed by any bad consequences, wherein mercury to the same extent as in syphilis was not employed.

SPURIOUS GONORRHŒA.

THE sebaceous glands, which are situated between the prepuce and glans, are sometimes irritated, and emit a copious white discharge. This affection generally attacks those who have natural phymosis. It should be treated by injecting warm water between the prepuce and glans; and where much inflammation exists, by fomenting the external part. After injecting, dry lint may be gently inserted under the prepuce. The parts should be well sup-

ported, and attention paid to the diet and habit of body. Excepting when ulceration is suspected to exist under the prepuce, there can be no necessity for dividing it. When the inflammation has diminished, if the discharge should continue, cold water may be substituted for the warm, and have gradually added to it sulphate of zinc, or sulphate of copper. There will seldom be any occasion for this, as the discharge usually stops with the use of the cold water.

GONORRHŒA IN WOMEN.

THE disease in this sex affects either the urethra or the vagina: when it does the latter, the general mucous membrane is the seat of it. The inflammation, however, frequently extends to the nymphæ, clitoris, and

labiæ. The symptoms are heat and itching in the vagina, greatly aggravated on making water; and in those cases where the urethra is much affected, there is ardor urinæ. The discharge puts on nearly the same appearance as in the male.

Some difficulty is generally felt in the discrimination between gonorrhœa and leucorrhœa: this I should by no means conceive to be the case, when we consider that the former is an actively inflamed state of the membrane, while the latter is a debilitated one. From having witnessed, however, but few instances of this complaint in the female, I am unable to offer any practical remarks. It appears to me, that were the patient questioned, about the symptoms and appearances that had first presented themselves, a tolerable conception might be formed, whether the disease was gonorrhœa or fluor albus. In gonorrhœa, I should imagine that the discharge from being at first thin, would soon

become purulent, and be attended with considerable heat and pain, much increased while voiding the urine. In those cases where the urethra is inflamed, a question of doubt could scarcely be entertained. Whereas in leucorrhœa, the discharge generally succeeds menstruation, and is hardly ever attended with much pain.

Whenever the inflammatory action of gonorrhœa has abated, it will be of no importance to distinguish whether the disease be leucorrhœa or gonorrhœa, as they are both debilitated states of the membrane lining the vagina, and will consequently require the same plan of treatment.

In some instances, the mucous glands on the inside of the labiæ inflame and suppurate; in others, the urinary bladder sympathizes with the general inflammation. Sometimes the discharge excoriates the perineum.

The treatment should, in my opinion, be precisely the same as that recommended for the male sex. At the commencement, while inflammation exists, hot anodyne injections should be freely thrown up the vagina ; and in those whose urethra is affected, gently up this canal. The patient should sit as quiet as possible, drink freely of mucilaginous fluids, be put on low diet, and have her bowels kept gently open. When the inflammation subsides, cold water, with the other astringents, ought to be injected, and the diet brought round to a generous nature.

If consulted, after the inflammatory symptoms have disappeared, cold water, gradually adding to it sulphate of zinc, or any other astringent salt, should be immediately used ; likewise the internal use of cantharides in constitutions free from glandular affections. A generous diet, and cold bathing, should also be

used. The same treatment is equally applicable to leucorrhœa.

When the glands of the labiæ suppurate, they may be dressed with dry lint, at the same time washing them with the astringent solution then in use for the gonorrhœa.

FINIS.